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NEW RECORDS OF NEOTROPICAL GENTIANACEAE—III

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This series of notes on the two genera, *Macrocarpaea*, a revision of which has been published,¹ and *Symbolanthus*, of which an unrecognized species is here described, supplements two earlier reports on neotropical Gentianaceae.

Macrocarpaea

1. *Macrocarpaea cerronis* Ewan, U. S. Nat. Herb. Contr. 29:223. pl. 2. 1948.

It was with considerable hesitancy that I described two species of *Macrocarpaea*, *M. cerronis* and *M. salicifolia*, as distinct from geographically adjacent *tepuis* of Venezuela on the basis of single collections in each instance. These two species displayed several critical morphological characters in common, as will be easily seen from a study of the facing illustrations in my account. I concluded these two collections represented distinct species not only on the basis of their differences indicated in the species key (p. 216) but because they evidently occupied different altitudinal positions on these respective cerros. Additional collections may change these interpretations but it is of interest that the second collection of *M. cerronis*, just made available to me for study, supports my conclusions as to both the distinct morphology of the species and its zonal position. A collection made by Captain Felix Cardona P. (no. 2679), Jan. 1949, on "cumbre del Cerro Auyan, altura 2,500 mts.," State of Bolivar (US) is a good match for the type, though the corolla in the latest collection is larger (4.5 cm. long) and the calyx lobes are longer (9-10 mm. long).

2. *Macrocarpaea glaziovii* subsp. *constricta* (Griseb.) Ewan, comb. nov. *Lisyanthus obtusifolius* var. *constrictus* Griseb. Gen. et Sp. Gent. 175. 1839. Type: Langsdorf *s. n.*, "prov. Minas Geraes" in Herb. Hookerianum, Kew.

Representative collection: "sous-frutescent, fl. verdâtres," Corcovado, a Paineiras, Rio de Janeiro, Brazil, *Glaziou* 900 (C).

In the course of my recent report on *Macrocarpaea glaziovii*,² I distinguished that species from *M. obtusifolia* of Brazil. There is at Copenhagen, in addition to the type of *M. glaziovii*, a second *Glaziou* collection (no. 900) without locality data, which was mistakenly identified in 1896 by E. Gilg as *Macrocarpaea obtusifolia*. The calyces are not pubescent, however, as in that species, and though the corollas are rather

¹Contr. U. S. Nat. Herb. 29:203-251. 5 pls. 1948.

²Proc. Biol. Soc. Wash. 64:134. 1951.

larger than the type of *M. glaziovii*, it certainly is to be referred to that species rather than to *M. obtusifolia*. The locality for this Copenhagen sheet was ascertained by reference to A. F. M. Glaziou's "Liste des plantes du Bresil central recueillies en 1861-1895" (Mem. Bot. Soc. France 3:474 (accompanying Bull. ser. 4, vol. 10 or whole no. vol. 57) 1910).

3. *Macrocarpaea valerii* Standl.

The first historical collection of this Costa Rican species was filed as "Chelonanthus acutangulus," as originally identified by Standley nearly thirty years ago: La Palma, 8 July 1923, *F. L. Stevens* 279 (US). Dr. W. W. Diehl has kindly examined for me the map accompanying Stevens and Tehon's paper on Costa Rica and Panama fungi³ and La Palma is shown thereon at a point about midway between Puntarenas and Limon and approximately 15 kilometers northeast of San Jose. From this information it appears that both *Macrocarpaea valerii* and *M. subcaudata* occur about La Palma, but there is no present reason to doubt the distinctness of *M. subcaudata*, judging from the two sheets of Werckle's collection examined.

Symbolanthus

4. *Symbolanthus gaultherioides* sp. nov.

Shrub about 1 m. high; upper stems squarish, the internodes short throughout, articulated and rather prominently ridged in drying, thinly black-dingy pubescent with short blackish hairs; leaves small, closely overlapping in the manner of many ericads, rather fleshy when fresh, drying to leave a distinct white cartilaginous edge, oval to shortly ovate, subtruncate at the base, 25-32 cm. long, 17-20 mm. wide, barely acute, very sparsely pubescent with gray or whitish hairs beneath especially along the midrib; flowers borne terminally at ends of the leafy shoots, 56-70 (or 75) mm. long, calyx cylindrical, glabrous or lightly viscid-pubescent, 18-20 mm. long, a little constricted at the mouth, the three outer lobes a little rounded at apices, 12-14 mm. long, the two alternate inner lobes strictly acute; corolla red, the tube slender, cylindrical, 17-19 mm. long, the lobes broadly ovate or oblong-ovate, shortly cuspidate, finely erosulate, venulose, the lower lobes evidently not strongly dejected or reflexed; fruit unknown.

Frutex ca. 1 m. altus; ramis subtetragonis, internodis brevis, sparse atro-pubescentibus; foliis parvis, ericoideis, subcarnosis, ultime distincte albomarginatam, ovalis vel brevi-ovatis, subtruncatis ad basim, 25-32 cm. longis, 17-20 mm. latis, vix acutis, infra sparse cano-puberulentis; floribus terminalibus ad apicem ramis foliosis, 56-70 (vel 75) mm. longis, calyx cylindricis, glabris vel aliquantum viscido-pubescentis, 18-20 mm. longis, ad faucem subconstrictis, 12-14 mm. longis, 3 lobis subrotundatis sed 2 lobis alternatis valde acutis; corolla rubra, cylindricis, 17-19 mm. longis, lobis late ovatis vel oblongo-ovatis, minute erosulatis, breve cuspidatis, venulosis, omnibus lobis horizontalibus vel suberectis; fructus ignotus.

Type collected on Paramo de Sonson, alt. 2700-2850 meters, Dept.

³Univ. Ill. Biol. Monog. 1(2) 1927.

Antioquia, Colombia, by *Rafael Guarín and Bro. Daniel* 3476, Dec. 1943 (US 1,857,255).

Second collection: Colombia: Dept. Antioquia: Cerro de la Vieja, 2800 m., 26 Dec. 1938, *Bro. Daniel* 1693 (US).

Symbolanthus gaultherioides is closely allied to *S. microphyllus* Gilg of Peru (cf. Field Museum photo 10236 of type formerly in Berlin Herb.). Both species belong to the alliance of *Symbolanthus pauciflorus* Gilg, but *S. gaultherioides* and *S. microphyllus* are more closely related to each other than *S. pauciflorus* is to either of the latter species. This is an interesting example of the distribution phenomenon known to the phytogeographer as Jordan's Rule of Geminate Species: the nearest relative of a given species is not found in the immediate region, in this instance Peru, but at some distance from it. From the habitual standpoint these three species of *Symbolanthus* present the tempting suggestion that the genus *Calolisianthus* may be related to the shrub genus *Symbolanthus* through this group. The small flower size (for *Symbolanthus*) and the position of the flowers which are borne among the terminal leaves of the branchlets further support this suggestion.

5. *Symbolanthus mathewsii* (Griseb.) Ewan, comb. nov.

Lisyanthus mathewsii Griseb. Gen. et Sp. Gent. 361. 1839. Type: *A. Mathews*, "provincia Chacapoyos," Peru. Grisebach adds the phrase "a. 1836" after the citation of collector but though this might be construed as a collection number I am inclined to interpret it as "A (gust) 1836." Though Weberbauer⁴ does not account for Andrew Mathews's collections for the year 1836 specifically, beyond a general reference to his serious illness during this period, it is known that he botanized about Chachapoyos both before and after that date. The duplicate type in the Delessert Herbarium (cf. Field Museum photo 26837) carries a ticket "No. 1316," and this may actually represent Mathews's collection number.

This is a showy species of *Symbolanthus* and may represent what Gilg⁵ proposed as *Symbolanthus obscure-rosaceus*, based on Weberbauer 4634 from the mountains north of Moyobamba, Dept. Loreto, Peru, but this and other details must await the opportunity to study a larger series of collections than I have seen.

6. *Symbolanthus stuebelii* Gilg

This species was described from the Llanos de San Martín, Meta, Colombia, where it was collected by the geographer A. Steubel in August, 1868. It is evidently a rare transandean species, showing again the high endemism of the Colombian flora, and I have seen only a single subsequent collection: Quetame, Dept. Cundinamarca, July, 1916, *M. T. Dawe* 322 (US). Though in different political provinces of Colombia these two localities are in the same vegetation type, namely, the woodlands along the margins of the llanos.

7. *Symbolanthus superbus* Miers

This Colombian species was described from the valley of the Rio

⁴El Mundo Vegetal de los Andes Peruanos 9-10. 1945.

⁵Fedde, Rep. Nov. Sp. 2:56. 1906.

Magdalena and illustrated⁶ as having the calyx lobes equal, strongly ribbed, oval, all the lobes rounded at the tips, but six Colombian collections studied all show the calyx lobes to be from long-acuminate or even cuspidate to at least distinctly acute. From this data it would appear that the drawing by Miers was drastically conventionalized.

Representative collections: Colombia: Antioquia: Santa Elena, 1500-2000 m., *Archer* 1287 (US). Santander: Mesa de los Santos, 1500 m., *Killip & Smith* 15126 (US), 15133 (US); betw. Piedecresta and Las Vegas, 2000-2500 m., *Killip & Smith* 16170 (US). Amazonas: "trapezio amazonico," betw. Amazon and Putumayo watersheds, 100 m., *Schultes* 6582A (US); Rio Igaraparana, los alrededores de La Chorrera, ca. 180 m., *Schultes* 3915 (US).

The distribution of *Symbolanthus superbus* falls into a pattern noticed for Colombian Scrophulariaceae by the late Dr. F. W. Pennell, namely that species of the Magdalena Valley reappear about the headwaters of the Amazon in small localized areas along watercourses.

⁶Jour. Bot. 7:218. pl. 94. 1869.